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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,750

03/16/2004

Rudolph N. Yurkovich

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02/01/2006

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EXAMINER

COLLINS, TIMOTHY D

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/801,750	YURKOVICH, RUDOLPH N.	
	Examiner	Art Unit	
	Timothy D. Collins	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/12/05, 6/21/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

While any delay in prosecution is regrettable, the previous restriction of 10/27/05 is hereby withdrawn and claims 1-33 are hereinafter given an action on the merits.

Claim Rejections - 35 USC § 112

1. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim calls for the forward and rearward pivots to move along the center axis of the vehicle, however no details showing how this occurs have been described. Also the figures do not show this either. More detail and explanation as to exactly how this occurs and the details of the pivot points are needed.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the details of the movement of the pivot points along the center axis as seen in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

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replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

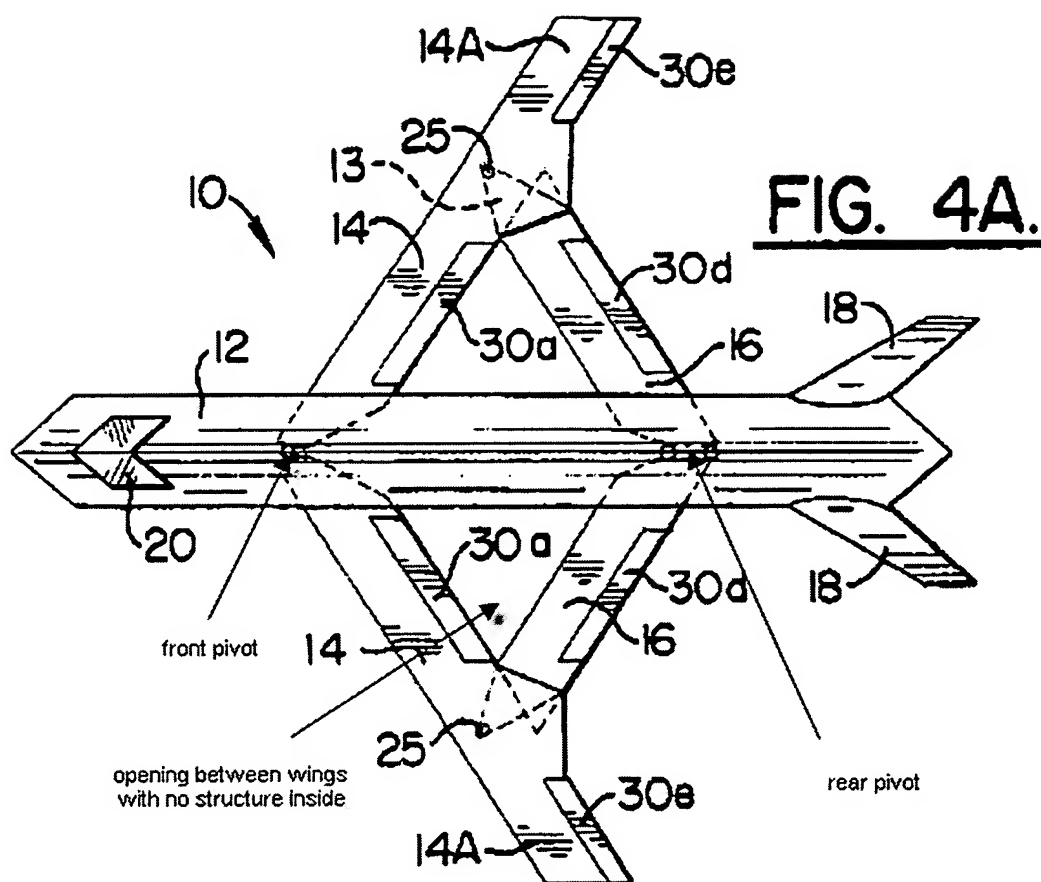
b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 96/36533.

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5. Claims 1-9, 11-19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5899410 to Garrett (hereinafter called 410).

a. Re claim 1, 410 discloses a vehicle 10 with a left side forward wing section (14 on the left), and a right side forward wing section (14 on the right) which is connected to the left side for movement between first and second positions see figures 4a (first) and 4b (second). Also a left side and right side rearward wing section (16 on the left and right). The left and right rearward wings being moveable between first and second relative positions see 4a and 4b. The wings being connected together for movement, with an opening between the left and right forward wings and also between the left and right rearward wings. The opening is seen in the figure 4a at least, in that between the left forward and rearward wings the opening is also between the right forward and rearward wings, the opening on the left side of the craft is the one referenced. The opening can be seen to be between all the wings, however it is closer to the ones on the left side in the given case. See below modified figure.



b. Re claim 2, 410 discloses that the left and right side forward wing sections and left and right rearward wing sections are in a common plane, as seen in figure 3 and also in the specification where the craft is referred to as being a coplanar joined wing craft.

c. Re claim 3, 410 discloses a forward pivot assembly as seen in the figure above.

d. Re claim 4, 410 discloses a rearward pivot assembly as seen in the figure above.

e. Re claim 5, as seen in the figures of 410 it can be seen that the craft has a center axis and pivots that are on the center axis. The rear pivot moving along the axis and the front pivot moving with respect to the rear along the axis.

Because of the lack of detail in the applicant's figure with respect to the movement of the pivot points and with just the notion that the pivots are covered by the forward and rearward glove sections in as much as applicant's pivots move along the center axis, so does the 410 reference.

f. Re claim 6, 410 discloses that the vehicle as a center axis, the axis that goes from the front to the rear and midway between the wings, the wings projecting laterally to the left and right of the center axis. See the figures.

g. Re claim 7, 410 discloses right and left side pivot assemblies as seen in the figures 4a and 4b at least. The pivots are labeled as number 25.

h. Re claim 8, 410 discloses that the pivots on the wings (25) move along the transverse axis when the front wings move from position 1 to position 2. This can be seen in the figures 4a and 4b which show that the craft is wider and narrower when the wings pivot.

i. Re claim 9, 410 discloses that the first and second positions correspond to first and second cumulative areas as seen in figures 4a and 4b. Also as can be seen from the figures and the dotted lines indicating what is covered in each position that the first position has a first cumulative area that is larger than the second cumulative area.

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- j. Re claim 11, 410 discloses from the figures 4a and 4b that the first AR is larger than the second AR.
- k. Re claim 12, 410 also discloses from figures 4a and 4b that the first span is greater than the second span.
- l. Re claim 13, 410 also discloses from figures 4a and 4b that the first sweep angle is smaller than the second sweep angle.
- m. Re claim 14, see rejections of claims 1 and 7 above.
- n. Re claim 15, see rejections of claims 14 and 2 above.
- o. Re claims 16 and 17, see rejections of claims 14,3 and 4 above.
- p. Re claim 18, 410 discloses in numbers 25 on the right and left that the wings are connected with pivot assemblies.
- q. Re claim 19, see rejections of claims 14 and 9 above.
- r. Re claim 21, see rejection of claims 14 and 11 above.
- s. Re claim 22, see rejection of claims 14 and 12 above.
- t. Re claim 23, see rejection of claims 14 and 13 above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5899410 as seen above in the rejections of claims 1-9,11-19 and 21-23.

a. Re claims 10 and 20, 410 does not specifically disclose that the cumulative area of the first position is at least 30% larger than that of the second, however it would have been obvious to one of ordinary skill in the art to have optimized the area change to allow for the slowest and fastest sections of the flight envelope of the craft. Therefore because of the lack of reason and criticality in the applicant's specification referring to the 30% change in area it would have been obvious to use the optimum change for the design flight envelope, whatever that may be. This would be done so that the craft is efficient at all points in the flight regime and can land very slowly and still cruise at a high mach number.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following disclose joined wing craft.

- a. USPN 4053125
- b. USPN 4365773
- c. USPN 6986481


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Collins whose telephone number is 571-272-

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6886. The examiner can normally be reached on M-F, 7:00-3:00, with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Timothy D. Collins
Patent Examiner
Art Unit 3643